

Notice of Allowability

Application No.

10/720,555

Examiner

Kathleen A. McNelis

Applicant(s)

KOHR, WILLIAM J.

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to IDS submitted 3/6/06.
2. ☒ The allowed claim(s) is/are 1-45.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>3/6/06</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Status of Claims

Claims 1-45 remain for examination.

DETAILED ACTION

Allowable Subject Matter

Claims 1-45 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art, Cardenas: Metalurgica Extractiva Del Oro¹ discloses a process for crushing ore to an optimum size, optionally agglomerating the ores with additives and/or binders, construction and leaching of heaps, but does not teach:

- Distribution of the concentrate of refractory sulfide minerals on top of a heap of support materials, biooxidizing the concentrate of refractory sulfide minerals, leaching precious metal values from the biooxidized refractory sulfide minerals with a lixiviant and recoverint the precious metal values from the lixiviant as in instant claim 1, or
- Distributing a concentrate of precious metal bearing refractory sulfide minerals on top of a heap of support material, wherein the support material is lava rock, gravel, or coarsely ground ore, biooxidizing the concentrate of refractory sulfide minerals, leaching precious metal values from the biooxidized refractory sulfide minerals with a lixiviant and recoverint the precious metal values from the lixiviant as in instant claim 10, or
- Distributing a concentrate of precious metal bearing refractory sulfide minerals on top of a heap of support material, wherein the support material is lava rock, gravel, or coarsely ground ore, biooxidizing the concentrate of refractory sulfide minerals, adding fresh concentrate to the top of the heap on an intermittent basis, intermittently

¹ Based on English translation provided with 3/6/06 IDS

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leaching gold from the biooxidized refractory sulfide minerals with thiourea and recovering gold values from the thiourea as in instant claim 15, or

- Forming a concentrate of metal sulfide minerals, spreading the concentrate on top of a heap of support material, biooxidizing the concentrate and recovering metal values from the solution used to biooxidize the metal sulfide minerals as in instant claim 16, or
- Forming a concentrate of metal sulfide minerals, spreading the concentrate on top of a heap of support material consisting of lava rock, gravel or coarsely ground rock, biooxidizing the concentrate, adding fresh concentrate to the top of the heap on an intermittent basis, and recovering metal values from the solution used to biooxidize the metal sulfide minerals as in instant claim 22, or
- Recovering metal values from refractory sulfide ores by separating fines from a crushed refractory sulfide ore, forming a heap with said refractory sulfide ore, bioleaching the ore to oxidize the metal sulfide particles, hydrometallurgically treating the bioleached ore to recover metal values and treating the fines to recover metal values as in instant claim 26, or
- Recovering metal values from refractory sulfide ores by separating fines from a crushed refractory sulfide ore, forming a heap with said refractory sulfide ore, bioleaching the ore to oxidize the metal sulfide particles, hydrometallurgically treating the bioleached ore to recover precious metal values and treating the fines to recover metal values as in instant claim 27.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen A. McNelis whose telephone number is 571 272 3554.

The examiner can normally be reached on M-F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ROY KING 
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700